



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,909	12/28/2000	Ramachandra Pai	BEA9-2000-0016-US1	9610
30011	7590	04/07/2004	EXAMINER	
LIEBERMAN & BRANDSDORFER, LLC 12221 MCDONALD CHAPEL DRIVE GAITHERSBURG, MD 20878			THAI, TUAN V	
			ART UNIT	PAPER NUMBER
			2186	

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,909

Applicant(s)

PAI, RAMACHANDRA

Examiner

Tuan V. Thai

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,8,9,15 and 16 is/are rejected.
- 7) ☒ Claim(s) 3,6,7,10-14,17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Application/Control Number: 09/752,909

Art Unit: 2186

Part III DETAILED ACTION

Response to Amendment

1. This office action is in response to Applicant's communication filed January 12, 2004. This amendment has been entered and carefully considered. Claims 1-18 remain pending in the application.

2. Applicant's arguments with respect to claims 1-18 have been considered but are deemed to be moot in view of the new grounds of rejection. The finality of the previous office action is hereby withdrawn. Any inconvenience is *SINCERELY* regretted.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following is suggested: -- VOLUME DATA NET BACKUP
UTILIZING DIRECT DATA TRANSFER THROUGH KERNEL LAYER --.

4. If a copy of a provisional application listed on the bottom portion of the accompanying Notice of References Cited (PTO-892) form is not included with this Office action and the PTO-892 has been annotated to indicate that the copy was not readily available, it is because the copy could not be readily obtained

Application/Control Number: 09/752,909

Art Unit: 2186

when the Office action was mailed. Should applicant desire a copy of such a provisional application, applicant should promptly request the copy from the Office of Public Records (OPR) in accordance with 37 CFR 1.14(a)(1)(iv), paying the required fee under 37 CFR 1.19(b)(1). If a copy is ordered from OPR, the shortened statutory period for reply to this Office action will not be reset under MPEP § 710.06 unless applicant can demonstrate a substantial delay by the Office in fulfilling the order for the copy of the provisional application. Where the applicant has been notified on the PTO-892 that a copy of the provisional application is not readily available, the provision of MPEP § 707.05(a) that a copy of the cited reference will be automatically furnished without charge will not apply.

Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 4-5, 8-9, 15-16 are rejected under 35

U.S.C. 103(a) as being unpatentable over Applicant admitted prior

Application/Control Number: 09/752,909

Art Unit: 2186

art; hereinafter AAPA, in view of Berg et al. (US 2001/0044904); hereinafter Berg.

As per claims 1 and 9, AAPA discloses the invention substantially as claimed including a computer system method for backing up data in a conventional two node network (source node 110 and target node 130) having multiple plexes coupling to a network devices 126 and 146 and data storage devices (e.g. see figure 2) with a first plex indirectly coupled to the network adapter (e.g. first plex of volume manager 148) and a second plex coupling to the storage device (device 134) (e.g. see figure 2); grouping the plexes into a logical volume is taught as plexes are grouped into logical volume within volume manager 128 and 148 (e.g. see figure 2); receiving data from the network by the first plex; and storing said data on said storage device by said second plex (e.g. see figure 2, and specification page 1, line 24 bridging page 3, line 5). The AAPA discloses the data is transferred from the kernel layer of the source node to the other kernel layer of the target node through the intermediate user layer and vice versa; however does not particularly teaches (and as being detailed in Applicant's specification's page 2, lines 27 et seq.) that the data is directly communicated from a kernel layer of a source node to a kernel layer of a target node.

Berg, in his teaching of secure remote kernel communication, discloses the missing element that known to be required in the

Application/Control Number: 09/752,909

Art Unit: 2186

AAPA in order to arrive at Applicant's current invention wherein Berge clearly discloses data being directly communicated from a kernel layer/level (kernel-level components) of one node/device to kernel layer of other node/device, as opposed to connecting to the user level/layer then connected to the kernel level/layer between nodes/devices (e.g. see abstract, page 1, paragraph [6]).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to implement the concept of transferring data directly among kernel levels/layers without going thru the user layer as taught by Berg for the AAPA'S system. In doing so, Berg clearly discloses management of the resources is simplified, better secured, and partitioned from general system administration utilities and configuration, therefore being advantageous (e.g. see abstract).

As per claim 2, AAPA discloses node 130 are configured as target node for backing up data from the network (e.g. see figure 2).

As per claim 4, AAPA discloses the volume of volume manager 148 is a feed volume for writing data to the plexes (e.g. see figure 1).

As per claim 5, it would be further clearly obvious from figure 2 that data can be transferred from node 130 (source node)

Application/Control Number: 09/752,909

Art Unit: 2186

back to node 110 (target node) in an equivalent manner as in the backup configuration (known as restoration configuration) that being claimed by Applicant (e.g. see figure 2).

As per claim 8, see arguments with respect to claims 4 and 5 as being detailed above.

As per claims 15-16; the combination of AAPA and Berg discloses the invention as claimed, detailed above with respect to claims 1-2, 4-5 and 9; the combination of Berg and AAPA however do not particularly disclose a computer-readable medium having of instructions to carry out the steps of claims 1-8 to be implemented on a computer as being claimed in claims 15-18. However, one of ordinary skill in the art would have recognized that computer readable medium (i.e., floppy, cd-rom, etc.) carrying computer-executable instructions for implementing a method, because it would facilitate the transporting and installing of the method on other systems, is generally well-known in the art. For example, a copy of the Microsoft Windows operating system can be found on a cd-rom from which Windows can be installed onto other systems, which is a lot easier than running a long cable or hand typing the software onto another system. The examiner takes Official Notice of this teaching. Therefore, it would have been obvious to put Berg and AAPA's program on a computer readable medium, because it would facilitate the transporting, installing and implementing of the

Application/Control Number: 09/752,909

Art Unit: 2186

combination of Berg and APPA's program on other systems.

Allowable subject matter

7. Claims 3, 6-7, 10, 12 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims. Claims 11 and 13-14 are also allowable since they are depended on the indicated allowable claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (703) 305-3842. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M..

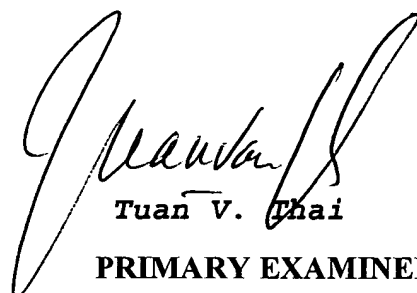
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (703) 305-3821. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may

Application/Control Number: 09/752,909

Art Unit: 2186

be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVT/April 02, 2004



Tuan V. Thai
PRIMARY EXAMINER
Group 2100